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ABSTRACT

This report examines the extent to which the Internet offers information and applications that meet the needs of the estimated 50 million low-income Americans who have limited literacy or language skills, or other special needs. The report discusses the fact that more low-income Americans are going online, large numbers have limited literacy skills or disabilities, more Americans from other cultures or countries are using the Internet, and technology access outside the home is on the rise. Next, it describes the necessity and value of online content for underserved Americans. It goes onto highlight what to look for in making the World Wide Web relevant for underserved Americans, and it discusses 2000 findings, which provide a comprehensive picture that serves as a benchmark against which to track progress as the field develops. Finally, the report describes the development of the Community Contentbank, a Web tool designed to empower low-income communities. Designed for staff in after school programs, community technology programs, and other places where underserved groups use computers and the Internet, it encourages local communities to find and develop the online content they need most. Research notes are appended. (Contains 34 references.) (SM)

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ONLINE CONTENT FOR LOW-INCOME AND UNDERSERVED AMERICANS

An Issue Brief By The Children's Partnership

WITH SUPPORT FROM THE MARKLE FOUNDATION

The Children's Partnership

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Highlights

As part of The Children's Partnership's commitment to ensure that all youth and their families can benefit from the opportunities offered by computers and the Internet, we have monitored how Americans are using these technology tools once they have them. This report looks at the extent to which the Internet today includes information and applications that meet the needs of the estimated 50 million Americans who have low incomes, limited-literacy or language skills, or other special needs. This Issue Brief updates the comprehensive analysis we released in March 2000, *Online Content for Low-Income and Underserved Americans: The Digital Divide's New Frontier.* (http://www.childrenspartnership.org/pub/low_income/index/html)

Large, Growing Need

There is a clear and growing need for appropriate Internet information and applications for underserved communities as the number of low-income users grows, the Internet audience diversifies, and the value of Internet-based resources is documented.

Overall Need: We estimate that 20% of Americans have needs for Internet information and applications that are not met today.

Low-Income Americans Online: Twice as many low-income Americans now use the Internet as did two years ago – 16.7 million, up from 7.8 million. They are most interested in online resources that help them find employment, affordable housing, and deal with life's daily challenges.

Non-English Speakers: Today, an estimated 45 million Americans do not speak English at home versus 32 million in 2000. Many want information in languages other than English.

Those With Disabilities: An estimated 8.5% of Americans have at least one disability that requires special features on computers and the Internet to make these resources accessible.

Foreign-Born Americans: More Americans now (28.4 million versus 26 million in 2000) are foreign-born and look for information tailored to their unique cultural beliefs and practices.

Expanded Networks Can Meet the Need

Internet Use Away From Home: Internet access from a location outside of the home more than doubled between 1998 and 2001, increasing from 17% to 34.8%. Places like schools, libraries, and community technology programs offer users the opportunity to obtain relevant Internet information and applications. In addition, residents who want to create content they value can get coaching at these centers to do so.

More Technology Access Places in Communities: There has been a notable increase in the number of places in local communities that can serve as "distribution and production" centers for relevant Internet information and applications. Compared to two years ago, the number of community technology centers (CTCs) has doubled, while the number of public libraries offering Internet access grew from 11,000 to more than 15,000.

New Research Documents Necessity and Value of Relevant Online Information

Essential for Opportunities: During the past two years, systematic studies document that technology access and use are becoming a necessity for underserved communities. Blue-collar occupations are moving to the Internet faster than any other occupational group. The Internet is becoming a standard way for Americans to find employment, seek health advice, and receive government benefits.

Proven Value in Underserved Communities: Respected evaluations as well as anecdotal evidence demonstrate solid gains in education, employment, and community economic development when residents of low-income neighborhoods have technology access and training.

What Underserved Americans Want Online

As we found in 2000, our new research confirms that underserved Americans are seeking the following content on the Internet: Practical information focusing on local community; information at a basic literacy level; material in multiple languages; spaces for ethnic and cultural interests; interfaces and content accessible to people with disabilities; easier searching; and coaches to guide them.

Modest Improvements in Online Content but Severe Gap Persists

Though the availability of content valued by underserved Americans has increased somewhat compared to two years ago, underserved Americans still face a severe online content gap:

Limited Literacy: The most serious shortages exist in content for the 44 million Americans with limited-literacy skills. Only 5% of the sites we reviewed (selected to represent the most useful sites available to underserved Americans) included content comprehensible to a person with limited reading skills. There is also a serious shortage of searching tools that work effectively for people with limited-literacy skills.

Multiple Languages: Some progress has been made in the availability of content in languages other than English. However, availability is still extremely limited, especially in languages other than Spanish. Only 20% of even the best sites offer information in Spanish that is fairly easy to find. In addition, early research suggests that the quality of products in other languages may be inferior in its accuracy and completeness.

Local Information: Perhaps the most promising progress is the attention now being paid by certain communities to developing online information that helps residents address their day-to-day needs. This was the top desire we identified among low-income communities in our 2000 research. What makes this an exciting arena for growth today is that a handful of very good local models now exist that can guide the content development efforts of other local communities. For example, One Economy Corporation has built local content on the Beehive (www.thebeehive.org) for low-income residents in selected cities. (On Contentbank.org, see also Best Practices in the Create Content section.)

Culture: As for cultural content, here, too, modest steps have been taken. Where there are models, they tend to relate to the ethnic or cultural groups that are larger in size, leaving smaller immigrant groups still largely without relevant online content (In Contentbank.org, click on the following section links: Online Resources >> Sites to Overcome Content Barriers >> Cultural Content).

Access for People With Disabilities: Although we did not systematically analyze the accessibility of online content for disabled Americans in 2000 because the field was so nascent, we did provide an initial picture for 2002. It documents that very few online resources meet the standards of accessibility for those with disabilities, despite the tremendous capability the Internet holds to help them overcome some of the challenges they face.

Role of Commercial Sites: Although much remains to be done to develop needed content for underserved Americans, we found some strong examples of relevant information or features (such as language translation) on large popular sites, suggesting that these advances can be developed further. Examples include AOL's Government Guide, About.com's Frugal Living, and portals for Americans who speak Spanish from Yahoo!, Lycos and MSN. Although still rare, these examples can serve as "best practices" to replicate and distribute more widely.

Contentbank Offers Solutions

Gathered together in a Web site called the Community Contentbank (**http://www.contentbank.org**), The Children's Partnership has designed a new online resource which is geared toward the growing number of community-based organizations that connect low-income neighborhoods to technology. Contentbank addresses six very specific needs we identified:

- Contentbank gathers and makes easily available the best content for underserved communities.
- Contentbank highlights and describes sites for limited literacy users as well as culturally relevant sites.
- Contentbank models how language, literacy and other barriers can be overcome.
- Contentbank provides instruction in how to create content that communities determine they want.
- Contentbank offers tips and hands-on technology tools so visitors can get a good start developing content.
- Contentbank builds a community among people and places working to address the content gap.

Through a variety of interactive features, this resource encourages a group of people previously working alone to participate in a broader, shared community in order to build content for and by, underserved groups. In addition, Contentbank produces valuable data about this emerging market – information that The Children's Partnership intends to share with the Internet industry.

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II

Introduction and Purposes

Over the past few years, computers and the Internet have become a part of everyday life in the United States. They are revolutionizing the way people learn, communicate, use their free time, and earn a living. Yet studies continue to show a significant and troubling gap, largely along income, education, and geographic lines, between those who have access to online information and opportunities and those who do not.[1] Even as access to technology has increased, how people use technology and the degree to which it enhances their lives and opportunities is very uneven.

Over the past few years, this technology gap has begun to receive attention from the press, policymakers, and the Internet industry. Yet a crucial aspect has been largely neglected: how people use the technology once they get connected. Through our seven years of work to address the technology gap, The Children's Partnership has found that it is as important to create useful content on the Internet — materials and applications that serve the needs and interests of millions of low-income and underserved Internet users – as it is to provide them with computers and Internet connections. For Americans at risk of being left behind, useful content includes: (1) employment, education, housing, health, business development and relevant local information; (2) information that can be clearly understood by people with limited-literacy skills; (3) information in multiple languages; and (4) opportunities to create and interact with culturally appropriate content.

In March 2000, The Children's Partnership released the first-ever comprehensive analysis of available online content. The Audit was designed to determine how well existing online content addressed the needs of low-income and underserved Americans. Nine months of original research included discussion groups with more than 100 low-income Internet users, interviews with nearly 100 community technology leaders and other experts, analysis of 1,000 Web sites, and a review of the literature and promising activities across the country. The findings, which provide a benchmark in this emerging field, documented a severe shortage of the kind of information most often sought out by underserved communities across America. We also found that where relevant content did exist, it was extremely difficult to find and was rarely presented in formats that individuals with limited-literacy or limited English-language skills needed. *(See Online Content for Low-Income and Underserved Americans, The Digital Divide's New Frontier: A Strategic Audit of Activities and Opportunities,* **http://www.childrenspartnership.org/pub/low_income/index.html***).*

Since issuing this report, we have spoken with hundreds more individuals from affected communities, policymaking bodies, and the Internet industry. Our conversations with them have affirmed that online content is indeed the next crucial frontier of the digital revolution. Only when useful information and applications are available will Internet access bring valuable and lasting benefits. While higher-income Americans seem to be finding rewarding uses of the Internet, it is still unclear whether millions of underserved Americans will be able to benefit from the opportunities in education, employment, and quality of life made possible today by online information and technologies.

As part of The Children's Partnership's commitment to address the online content gap – especially as it affects youth opportunity – we have continued to monitor the need for, and availability of, content for underserved communities. This Issue Brief:

- Analyzes relevant shifts in Internet access, use, and demand.
- Provides an updated snapshot of online content.
- Identifies key changes in the availability of relevant content since our last report.
- Introduces The Children's Partnership's response to the content gap — The Community Contentbank, a set of Web-based resources and tools to assist staff working with underserved communities to use and create relevant online content.

III

The Growing Need

In March 2000, we estimated that more than 50 million Americans, 20% of the U.S. population, faced a content gap online.[1] These include people who have limited-literacy skills, whose primary language is not English, those with extremely limited family budgets (less than the federally defined poverty level), and people whose native culture is not North American. This estimate was derived from available data using certain core assumptions, none of which has changed substantially during the past two years. We believe therefore that 50 million is still the best available working figure, and, in fact, represents a conservative estimate.

What has changed is that more of the traditionally underserved Americans are now online. In addition, there are more places where they can get online; and more is known about the valuable ways in which underserved communities use relevant content when it is available. There is a clear and growing need for appropriate online content as the number of low-income users increases, the Internet audience diversifies, and the value of Internet-based resources is documented.

More Low-Income Americans Are Going Online

Notwithstanding the fact that a significant gap still remains between the "haves" and "have-nots," it is true that every day greater numbers of low-income Americans are getting access to computers and beginning to use the Internet. In other words, more "potential" users of online content for underserved communities are online today, making the demand for content that meets the unique needs of low-income individuals greater than ever before.

- In the four years between 1997 and 2001 (the latest available data), the number of Americans with family incomes of less than $25,000 who used the Internet more than doubled (an increase from 7.8 million to 16.7 million).[3]
- Among people in very low-income families (less than $15,000 annually), there was a 90% increase in those online (increase from 4.1 million to 7.8 million).[4]

Large Numbers Have Limited-Literacy Skills or Disabilities

An estimated 44 million American adults do not have the reading and writing skills necessary for functioning in everyday life.[5] They are served inadequately by today's Internet content, most of which is developed for intermediat or advanced readers. Appropriate online content for limited-literacy Americans has the potential to raise literacy levels as well as employment levels.

New data, which for the first time includes information abou people with disabilities, shows that approximately 8.5% of th population has at least one significant disability.[6] For older Americans (aged 65 and older) the figure is nearly 30%.[7] Thi data also shows, for the first time, that people who have one more disability are much less likely to be Internet users than those without any disability.[8] Yet, having access to, and the ability to use, online information (presented in ways that are accessible to the disabled) could open up valuable new ways people with physical or mental difficulties to learn, work, or communicate with others.

More Americans From Other Cultures or Countries Are Using the Internet

In our 2000 report, we emphasized the large number of Am icans who were affected by the severe shortage of online con tent celebrating the uniqueness of cultures in their country a beyond. We reported that for many of the 26 million Ameri cans who are foreign-born, the lack of culturally diverse Inte net content limited what they could find that was relevant a valuable to their lives, such as advice for dealing with a healt problem tailored to their unique cultural beliefs or practices. According to more recent figures, that number has grown.

- There are now 28.4 million Americans living in the United States who are foreign-born.[9] This larger grou experiences first-hand the shortage of content organi around their unique cultural interests and practices.

Technology Access Outside the Home Is on the Rise

- Internet access from a location outside of the home more than doubled between 1998 and 2001, up from 17% to 34.8%.[10]
- At the end of 1998, only 6.5% of the population used the Internet both at home and from another location. Three years later, the figure had nearly quadrupled to 24.5%.[11]

One lesson from communities around the country is that oftentimes residents in low-income communities use a neighborhood technology program even if they have a computer and Internet access at home. Participants report that community-based technology programs provide a great deal more than just access to computers and the Internet. These programs provide a helpful and familiar atmosphere and the chance to learn new things and ask staff for coaching when they have trouble. What is striking about the growing use of neighborhood institutions for technology access is that they offer the opportunity to engage groups of community residents, with the help of center coaches and staff, in finding and using relevant content. In addition, it becomes possible for groups of residents using schools, libraries, and neighborhood technology programs to identify the information and tools they need to help them in their daily lives, and, if they desire, to work together to develop that content.

The Number of Technology Access Places Grows

Accompanying residents' clear desire to use Internet resources in a community setting has been a notable growth in the number of these facilities. Community technology programs – whether offered at community colleges, after-school youth programs, libraries, community technology centers (CTCs) or other trusted community-based organizations – provide a place for residents to find and use available online content as well as a place where they can work with others to create content they value.

Two years ago, a nationwide system was beginning to develop with the capacity to disseminate good "online product" to low-income residents throughout the country. During the past two years that base has expanded and now includes:

- Over 15,000 public libraries offering public access to the Internet — up from 11,000 two years ago.[12]
- Over 1,100 accredited community colleges across the country.[13]
- Double the number of CTCs compared to two years ago — now estimated at several thousand.[14]
- Thousands of other technology access places in housing facilities, after-school youth programs, neighborhood nonprofit organizations, and literacy centers – many of which did not exist two years ago.

IV

The Necessity and Value of Online Content for Underserved Americans

As the community technology field develops, evidence is building that documents the strong value that relevant technology tools and resources have to underserved communities. Anecdotal stories abound of young people who had dropped out of school and had no life plan until they found a community technology program that taught them a technology skill — whether word processing, Web design, desktop publishing, graphic design, or video production. Their self-esteem and happiness grew, and within a short time many had decent-paying jobs or had returned to school, and most were on a path to self-sufficiency.

***Manuel Santana**, a young man in Los Angeles, has wanted a job ever since he was 16 so he could help support his family. When he heard through word of mouth that a local youth organization taught multimedia skills that could eventually lead to a good-paying job, and even paid students to attend class, Manuel immediately enrolled.*

At first, Manuel did not seem too interested in the Web site design course and missed classes. But as the class progressed, he became more interested. He learned not only how to create a Web site and the related applications, but also about project management and interpersonal relationships. As a class project, Manuel worked with his fellow students to develop a Web site for the University of Southern California's Department of Family Medicine, Division of Community Health.

When the course ended, Manuel was asked to become a consultant for the university, updating its Web site on an as-needed basis. He has worked for the university for almost a year now. In addition, he works five to six days per week at the youth center's technology program, helping other students learn about computers. On top of these two jobs, Manuel is attending Los Angeles City College, and hopes to transfer to Cal Poly. With so much responsibility now, he wonders whether it will become necessary to give up one of his jobs.

*When **Tristen Montoya**, a 17 year old from Taos Pueblo, New Mexico, began participating in the Open Studio Youth Project at La Plaza Telecommunity (in Taos), his instructors found him to be very quiet and somewhat distant in class. They were concerned he*

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might drop out. But thanks to this program which explores careers in the arts and technology, Tristen became engaged and began to blossom. Today he is giving back to his community and is on track to graduate from high school and continue his education, a noteworthy achievement in a community with very low graduation rates.

Web design turned out to be a natural medium for self-expression for Tristen. Because he is a talented artist, he immediately liked the graphical aspects of Web design in the Open Studio Youth Project. Now, however, he has become very good in all aspects of Web development. In fact, he served as the lead designer on a project led by La Plaza – creating a youth-oriented Web site for an anti-smoking campaign targeted at teens. He is excited to begin a new venture using his new skills to make a difference in his community. The Gates Foundation funded Taos Pueblo (a small Native-American community to which Tristen belongs) to preserve its oral traditions in digital form. Tristen is planning to record the voices of his elders and to digitize photographs dating back to the 1920s. Tristen says, "basically, our language, Tiwa, is hanging on by a thread. The youth are moving away and the elders are dying. It is really important that we get this project going."

New Research on Necessity and Impact

During the past two years, systematic studies have shown that technology access and use are becoming a necessity for underserved communities, and, when available, are providing valuable benefits. As this trend continues, underserved communities have the potential to become a formidable market.

The Internet: Rapidly Becoming Essential for Basic Needs

- At present, over half (57%) of people over the age of 25 who are employed use a computer at work.[15] In fact, blue-collar occupations are moving online faster than any other occupational group, with factory operators and laborers, for example, showing a 52% increase in one year alone in the number using the Internet.[16]
- According to a recent national survey, when looking for work-related information, 48% of respondents chose the Internet. Sixty percent chose the Internet for personal and special interest information needs, compared to 18% who chose magazines.[17]
- Health information is a top use of the Internet today; low-income individuals place a high value on it as well. In a national survey conducted in March 2002, the Pew Internet Project found that 73 million Americans (62% of Internet users) have gone online in search of health information. On a typical day, six million Americans turn to the Internet for health information. Most repor that the information is helpful as they make decisions about themselves or a loved one.[18]
- Three quarters of all individuals enrolled in school use the Internet to complete school assignments.[19] Twenty-one percent of adults nationwide say their children's grades have improved since beginning to use the Internet.[20]
- In 2001, 55% of Americans visited a government Web site, with 21% actually conducting business online with a government entity.[21] Ensuring Internet access for underserved communities is important since, increasingly, families are expected to receive government benefits for which they qualify via the Internet – whether it is Medicaid or Medicare information, Food Stamps, or Social Security.[22]

Impact of Community Technology on Underserved Communities

As informative as these individual studies are, they do not offer as complete a picture as that provided by a recent comprehensive evaluation of community technology efforts. A study by Claremont Graduate University, which tracked for four years the effects of community technology access and use among a sample of 25,000 participants in 11 diverse low-income communities across California found:[23]

- 82% of center participants said that being involved in the program helped improve their educational opportunities
- 55% of the adults used the program to seek employment or a better job.
- 43% of participants said they used the program to improve their school performance.
- 80% said they could perform computer tasks without help by the end of their course.

In the words of a high school senior who participated in the program: *"For a teenager like me, going to school and trying hard to get good grades to become 'alguien en la vida' (as my parents say) or 'someone in life,' is very important. I come from a working class background. Both my parents work for the little we have... A few years ago, visiting the community center near our house, we stumbled on a great facility that has helped my entire family... (The program) has helped me tremendously, not only in my academics but in my social life as well. Through the skills I have learned, I have been able to help my church (with its) newsletter... One of the greatest satisfactions I have is in the lab, where I help others who are just getting started using computers... I know, with my education and increasing knowledge in this new technology, I will be in a position of helping my parents and my community in the years to come.*

V

Making the Web Relevant for Underserved Americans: What They Look For

With an increased need for, and greater value ascribed to, community technology programs in underserved communities, the core questions we asked in 2000 remain the same today: What do underserved Internet users want and what barriers do they face?

Our work during the past few years with community leaders, technology program staff, and program participants has confirmed that what we found in 2000 still holds true today. Following are key items that underserved communities are looking for online:

Practical information focusing on local community. Over and over again, we hear that practical information about their local community is what they (communities) most want. This information includes:

- Local job listings, including entry-level jobs.
- Local housing listings, including apartments with relatively low rents and homes in foreclosure.
- Community information about neighborhood events, places to go for family outings, local schools, and needed services like health care.

Information at a basic literacy level. This includes:

- Preparation for securing a high school equivalency degree, especially written for limited-literacy users and people for whom English is not their primary language.
- Online resources that include graphics, read-a-loud and other non-text features that help people learn to read.
- Online tutorials for different software programs; and tutorials that show people the benefit of the Internet and how it can assist in day-to-day living.

Content for non-English speakers. This includes:

- Online translation tools.
- Instructional tools to improve English language skills.
- Information in multiple languages.

Information on ethnic and cultural interests. This includes:

- Vital information, like health information, presented with the interests of particular racial and ethnic groups in mind.
- Places to share information and have rich dialogue about heritage and cultural practices.
- Culture in the broadest sense, including ethnic-specific art, music, sports and other activities.

User interfaces and content that are accessible to people with disabilities. This includes features required to obtain "Bobby Approval" indicating that a site is accessible, including:[25]

- Providing text equivalents for all images and multimedia, such as animations, audio, and video.
- Ensuring that all information conveyed with color is also available without color.
- Providing written summaries of graphs and charts.

Easier searching, coaching and involvement. Appropriate content alone is not enough. Many underserved people obtain information they want from family, friends, and other trusted people, so there is often not a "felt need" to go to the Web or library to seek information. Features that can encourage residents to use the Internet include:

- Searching capability that is clear, quick, and text-light, along with easy-to-use interfaces.
- Online "coaches or mentors" to guide them in finding what they want on the Web, suggest sites or activities to get started, or help use a tutorial or other program.
- An environment where they can get literacy support or help with English if needed.

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*For **William Ortiz**, a teenager residing in central Los Angeles, learning multimedia production has opened up a whole new world of possibilities. William learned about multimedia production courses when he visited a community technology center looking for a part-time job. He enrolled in a multimedia course that offered him a chance to learn about graphic design and use applications that he had never used before. Among other things, the class required students to develop their own logo, a more difficult task than learning multimedia skills themselves. Through valuable feedback from his instructors and many iterations of his design, William finally developed his own logo that is now imprinted on his own letterhead, business cards, and envelopes.*

More important than the multimedia skills William learned, being a part of the program has changed his perspective on life. Talking with professionals at the companies he and his fellow students visited through class, William discovered that the multimedia programs these professionals used were the same ones the students used. William found out the salary levels for professionals in these jobs and knows if he continues learning these programs he has the potential to land a well-paying job in the future.

In addition, the center and its technology program have changed William's personal goals. As he has seen his own skills develop and received positive reinforcement from center staff, he now aspires to attend college — the first in his family. He plans to open up his own graphic design company and to set the standard for his family that college is possible.

VI

Online Content: Snapshot 2002

With more than 2 million pages being added to the Internet each day, this medium is extremely fluid and able to respond changes and pressures from its market. For this reason, we thought it important to look again at the state of online content for underserved Americans. Our 2000 findings provided comprehensive picture that serves as a benchmark against which to track progress as the field develops.

Benchmark 2000

Our extensive research in 2000 documented that precisely the information most often requested by underserved users prove to be the most rare and difficult to find. Even though the 1,000 sites we reviewed were selected from the best portals on the Web rather than what was typically available, we found that the topics of interest (jobs, housing, education, health) were rarely addressed at literacy levels and in languages that underserved Americans need.

Number and Percent of the 1,000 Sites Included in TCP's 2000 Survey That Addressed Key Content Barriers

Local Information	**6%**
Local Jobs	**1%**
Local Housing	**1%**
Limited Literacy	**1%**
Multilingual	**2%**
Cultural	**1%**

Updating the Picture

Whereas our goal in 2000 was to offer a comprehensive picture of the state of online content for communities left behin this update provides a snapshot of what exists two years later Because our research goals for 2000 and 2002 were different, our research methods were also different. Appendix I provide further details on each approach and how the two sets of findings can be interpreted. This 2002 snapshot is based on four types of original research:

1. To understand the "state of the art" of online content at its best, we took a close look at 20 sites we identified as particularly useful to underserved communities (for a listing, see Contentbank.org's Recommended Sites in the Online Resources section). We analyzed the extent to which these sites addressed literacy, language, and cultural barriers, and whether they included local content. We also looked at whether sites met accepted standards for being accessible to people with disabilities.

2. To learn what more typical Internet content is like, we reviewed 10 of the most heavily visited sites, selected from Nielsen//NetRatings Top 25 and Jupiter Media Metrix Top 50 U.S. Web and Digital Media Properties.[26] Here, too, we looked at the extent to which these sites addressed literacy, language, and cultural barriers, whether they included local content, as well as whether they met disability standards.

3. We updated any indicators used in our 2000 report for which newer data is available — for example the estimated percentage of documents on the Internet that are in English.

4. We sampled the Internet more broadly to get a sense of what has changed, reviewed the newest studies, and consulted knowledgeable colleagues to double check our conclusions.

What the Data Show

A Closer Look at Sites Useful to Underserved Communities

Even among the 20 sites The Children's Partnership recommends for their relevant, useful content, significant content barriers still exist. Of the 20 sites (which represent among the best for underserved users):

- Only one (5%) included content comprehensible to a person with limited reading skills.
- Nine (45%) offered the information in one or more languages besides English.
- Four (20%) offered information that is in Spanish and fairly easy to find.
- 12 (60%) included some local community information.
- 10 (50%) included content related to heritage or cultural practices.
- Five (25%) were accessible to people with disabilities. These were newer government sites, generally launched since 2001.

These findings demonstrate that content barriers are beginning to be addressed by certain content producers. However, these advances are still the exception rather than the norm. And even for sites like these that are among the "best" of the Web, severe barriers still exist, most notably for people with limited-literacy skills.

A Closer Look at the Most Popular Internet Sites

Our look at the most heavily visited sites presents a very different picture.[27] While there has been notable progress during the past two years in addressing certain barriers — especially language and culture — overall there is still tremendous work to do to make the most popular destinations useful and relevant to the 50 million underserved Americans. Following are key findings in our four areas of focus:

Local Information

- Local content, especially for entry-level jobs and low-cost housing, is sometimes available but remains difficult to find. Local content on top Web properties features entertainment and shopping and contains relatively little information on life needs like jobs and housing.
- Coverage is uneven. For example, we found local information for only four cities in Texas.
- The local information that is available tends to ignore individuals in need of additional support to enter and succeed in the workforce, such as low-income mothers moving from welfare to employment who need to bolster their skills and find affordable child care.

Limited Literacy

- Information written at a fifth-grade reading level is very limited and difficult to find. It took great effort to find this type of content in most of the top properties.
- Health information is more readily available than other content areas (education, housing, and jobs).
- It tends to be easier to find content for early readers in portals that feature topics and articles (e.g., Lycos) than it is in directories that include massive amounts of information that is difficult to search (e.g., Yahoo!).
- The design and interfaces of the top properties often add to the difficulties faced by early readers. Sophisticated graphical elements, ads, and other features often create a space that is busy and confusing to early adult readers.

Languages

- Information for non-English speakers in the U.S. is somewhat available but difficult to find. Spanish speakers have far greater access today than two years ago to high-quality content; however, other groups usually do not.
- Properties such as Lycos, MSN and Yahoo! offer extensive portals for Hispanic/Latino Americans who are primarily fluent in Spanish. But these portals (e.g., http://www.yupimsn.com/) tend to emphasize entertainment and commerce rather than daily life needs.
- Information about human services in a language other than English is rarely found on commercial sites.

Ethnic Cultures

- Ethnic cultural information is sometimes available but usually difficult to find. Ethnic information about culture and history is more common; however, content related to health and other human services for ethnic groups is still rarely available.
- Good content sites are sometimes found through searches or queries on the top portals; one example is Hmongnet (http://www.hmongnet.org/), which features an English-Hmong dictionary of special education, jobs requiring Hmong fluency, and Hmong-related health topics (found through Ask Jeeves).
- Ethnic content development has begun to move beyond the government and nonprofit sector. Certain mainstream content providers, such as WebMD, now offer some information tools for ethnic groups.

Final Observation

It is important to note that strong examples of relevant content or features (like language translation) can be found on these popular sites and provide valuable building blocks for further development. Examples include AOL's Government Guide, About.com's Frugal Living, and portals for Americans who speak Spanish from Yahoo!, Lycos, and MSN. Although still rare, these examples can serve as "best practices" to replicate more widely. In addition, heavily visited sites can quite easily make it a priority to find relevant content for underserved Americans and promote them so visitors can find them more easily.

Other New Data or Analysis

In 2000 we reported that 87% of documents on the Internet are in English[28] even though an estimated 32 million Americans speak a language other than English.[29] In a significant shift, today an estimated 70% of Internet documents are in English[30]; yet an estimated 45 million Americans speak a language other than English at home.[31] And in a groundbreaking analysis of 20,000 pages of health information on the Internet RAND concluded that:[32]

- The best English-language Web sites were far better than the Spanish-language sites. Spanish-language sites were sparse and less consistently accurate.
- Almost all of the Spanish-language information was written for at least a ninth-grade reading level, with 40% written for college level.
- While English language search engines had only a one-in-five chance of finding information relevant to the search, performance was even poorer for Spanish-language search engines where consumers had only a 1 in likelihood of finding relevant content.

Finally, a landmark study published by the Pew Internet and American Life Project in November 2001 looked at the connection between the Internet and urban development in five major cities.[33] Some cities used community technology and networking to deliver government services better, others for job training, still others for neighborhood entrepreneurship or community building. In analyzing the extent to which these community networking activities help build social capital in these cities, the researchers found that it is in the process of developing online content that social capital develops. Social capital included networks of people working together to solve community problems. For example, "when affordable housing providers come together in a city to develop a Web-based system to track the supply and condition of housing, this Internet content greatly improves the operating efficiencies for clients."[34]

VII

Our Response: Community Contentbank.org

In response to what we learned from local communities over the past two years, The Children's Partnership has developed a new Web tool designed to empower low-income communities. Designed for staff in after-school programs, community technology programs, and other places where underserved groups use computers and the Internet, it enables and encourages local communities to find and develop the online content they need most, which is difficult to find and rarely available today.

Gathered together in a Web site called The Community Contentbank (**http://www.contentbank.org**), this new resource for community technology organizations is designed as a solution to six very specific needs we identified:

1. Contentbank gathers and makes easily available the best content for underserved communities. Community technology programs, whether in community colleges, housing facilities, libraries, after-school programs, community technology centers, schools, or neighborhood organizations, can now guide their youth and adults to a carefully selected set of Web sites on the subjects of jobs, education, housing or health.

2. Contentbank highlights and describes sites for limited-literacy users as well as culturally relevant sites.

3. Contentbank models how language, literacy, and other barriers can be overcome. The site can be read aloud, translated into Spanish, or searched by subject or key word. Although limited by the constraints of available software tools that overcome content barriers, Contentbank incorporates throughout the site the best, affordable tools we could find. In doing so, it underscores the urgent need to develop more effective searching and literacy tools. In addition, the site is accessible to people with disabilities.

4. Contentbank provides instruction in how to create content that communities determine they want. Besides getting a step-by-step "how to" guide for developing relevant content, staff at these centers and center participants can learn how some of the very best community-generated Internet content was created to advance the program's mission. In addition to understanding the staffing, resources, and technical specifications of these content programs, Contentbank summarizes the lessons learned from them.

5. Contentbank offers tips and hands-on technology tools so visitors can get a good start developing content. It summarizes key information about available software tools that overcome language and literacy barriers, including read-a-loud, translation, and searching tools. In addition, it makes available some software utilities as well as survey questionnaires, permission forms, training curriculum and other practical tools for getting started.

6. Contentbank builds a community among people and places working to address the content gap. Through surveys of visitors' needs and interests, feedback from them about programs and tools on the site, discussion groups on vital topics, and the opportunity to contribute content to Contentbank, this resource encourages a group of people previously working alone to participate in a broader shared community to build content for, and by, underserved users. It also offers them tips on how to influence policy and funding in order to generate greater support for content development. Finally, through its research functions, Contentbank produces valuable data about this emerging market which The Children's Partnership intends to share with the Internet industry.

VIII

In Closing

Through Contentbank and related community technology work, The Children's Partnership aims to help spur the development of needed online content. We fully hope and expect that when the next assessment of the state of online content is completed, a far more satisfactory picture will emerge than this 2002 portrait documents.

With Thanks

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Appendix I: Research Note

This Issue Brief was designed to update our more comprehe sive analysis of online content for underserved Americans issued in March 2000 (**http://www.childrenspartnership.org/pul low_income/index.html**).

Its purpose is to identify the major changes that have taken place during the past two years in online content for commu nities left behind and present a simple snapshot of what exis for them today.

Methods for 2000 Benchmark Study

Because our 2000 research was the first-ever systematic look this subject and therefore needed to serve as a benchmark fo the field, its scope was comprehensive. In addition to hundr of interviews with experts, community leaders, and with low income users themselves, our team analyzed 1,000 Web site within 20 community networks or portals that were carefull selected to provide a mini-map of some of the best content available. We looked for general patterns, gaps, and strength but did not make stand-alone assessments of particular sites We evaluated the sites according to the following criteria:

- Content on subjects of interest (housing, health, education, and jobs), including local content.
- Literacy level (limited, intermediate, and advanced).
- Intuitive navigation (ease of use).
- Language (Is there information in languages other th English?).
- Culture (Is there space for information about heritag and cultural practices?).
- Interactivity (Are there ways the site visitor can interact with the site, send e-mail, etc.?).

Methods for 2002 Update

For the 2002 Update, we used the same criteria and applied them to 20 sites we identified as particularly useful to unde served communities. We also examined whether sites were accessible to people with disabilities. This method allowed u to understand the "state of the art" of online content at its h It should be noted that these 20 sites were selected in Dece ber 2001 and therefore do not include sites launched more recently. Criteria for selection included:

- Subject matter is particularly relevant to underserved communities.

- Resource meets one or more of the standards on our Access Checklist (see the Access Checklist on Contentbank.org by clicking: Site Tools >> Tech Library >> Access Checklist).
- Information is reliable because of the credibility of the source or other attributes.
- Site includes certain exemplary features — whether design, functionalities, depth of its subject matter, etc.

(For a listing, see Contentbank.org's Recommended Sites in the Online Resources Section.)

As a complement to this snapshot of the most advanced areas of the Web, we analyzed content on 10 of the most heavily visited sites. (Sites were derived from Top 25 Web Properties, April 2002, U.S. Nielsen//NetRatings and Jupiter Media Metrix U.S. Top 50 Web and Digital Media Properties "Unique Visitors, at Home and At Work Combined in the U.S., Measurement Period March 2002.") This method allowed us to see the extent to which content barriers were being addressed on the most popular/heavily used sites. We looked for the same features as with the 20 sites above. As with our 2000 research, we looked for general patterns, gaps, and strengths, but did not make stand-alone assessments of particular sites. The 10 were selected from Nielsen//NetRatings and Jupiter Media Metrix Top 50 properties, focusing on those with relevant purposes, audiences, and content. They include:

AOL:	http://www.aol.com/
Yahoo!:	http://www.yahoo.com/
MSN:	http://www.msn.com/
Google:	http://www.google.com
Lycos:	http://www.lycos.com/
About.com:	http://www.about.com/
Excite:	http://www.excite.com
Ask Jeeves:	http://www.ask.com/channels/index.asp
iVillage:	http://www.ivillage.com/
LookSmart:	http://www.looksmart.com/

Comparing the 2000 and 2002 Findings

This Issue Brief draws many important conclusions about how online content for underserved communities today compares with what existed two years ago. It should be noted that because the purposes and methods of our 2002 research are very different from those in 2000, the statistical (quantitative) findings are not directly comparable.

References

1 See U.S. Department of Commerce, *A Nation Online: How Americans Are Expanding Their Use of the Internet*, February 2002, and The Children's Partnership, *Highlights and Analysis of the U.S. Department of Commerce's 2002 Report on Internet Access and Use*, February 2002 (http://www.ntia.doc.gov/ntiahome/dn/Nation_Online.pdf and http://www.techpolicybank.org/2002commercereport.html).

2 To arrive at this estimate, we had to make certain assumptions. Further survey work is needed to make these estimates more precise. We started with the 44 million Americans who lack functional literacy skills, and assumed a high degree of overlap between the limited-literacy Americans and the other three barrier groups. Assuming that even 7.5% of the 79 million Americans counted in the other three categories are new (i.e., not already counted in the limited-literacy group), at least 50 million Americans are affected. We believe that further research will show that, in fact, the number is considerably higher.

3 U.S. Department of Commerce, *op. cit* (http://www.ntia.doc.gov/ntiahome/dn/Nation_Online.pdf).

4 U.S. Department of Commerce, *op. cit* (http://www.ntia.doc.gov/ntiahome/dn/Nation_Online.pdf).

5 New figure expected in late 2002. National Center for Education Statistics, *National Adult Literacy Survey*, 1992. Literacy experts define a functional literacy level as, for example, being able to locate an intersection on a street map or calculate the costs of a purchase from an order form. See http://www.nifl.gov/readers/intro.htm#D and National Institute For Literacy, Fast Facts on Literacy, Web site Publication, 1999 (http://www.nifl.gov).

6 Defined as having at least one of the following disabilities: blindness or severe vision impairment, deafness or severe hearing impairment, a physical condition that substantially inhibits mobility, a condition that makes it difficult to type on a traditional computer keyboard, or a physical or mental condition that makes it difficult to leave the house. U.S. Department of Commerce, *op.cit* (http://www.ntia.doc.gov/ntiahome/dn/Nation_Online.pdf).

7 U.S. Department of Commerce, *op.cit* (http://www.ntia.doc.gov/ntiahome/dn/Nation_Online.pdf).

8 U.S. Department of Commerce, *op.cit* (http://www.ntia.doc.gov/ntiahome/dn/Nation_Online.pdf).

9 U.S. Bureau of the Census, *Current Population Survey: Nativity, Place of Birth of the Native Population, and Region of Birth of the Foreign-Born Population*, March 2000 (http://www.census.gov/population/socdemo/foreign/ppl-145/tab01-1.pdf).

10 U.S. Department of Commerce, *op. cit* (http://www.ntia.doc.gov/ntiahome/dn/Nation_Online.pdf).

11 U.S. Department of Commerce, *op. cit* (http://www.ntia.doc.gov/ntiahome/dn/Nation_Online.pdf).

12 Bertot, J.C. & McClure, C. Submitted to the National Commission on Libraries and Information Science, *Public Libraries and the Internet 2000: Summary Findings and Data Tables*, September 2000 (http://www.nclis.gov/statsurv/2000plo.pdf).

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13 Association of Community Colleges, *Number of Community Colleges*, 2000 (http://www.aacc.nche.edu/Template.cfm?Section=AboutCommunity-Colleges).

14 Note: Because the field of community technology is still relatively young, there is no complete inventory of community technology centers nationwide. But one directory that lists some of them (the one maintained by the Community Technology Centers' Network — CTCNet) shows that the number they track increased from 300 to 600 in the past two years (http://www.ctcnet.org). Recent figures on the number of community technology programs by city or state show large and increasing numbers. (See, for example, numbers for San Diego and New York City at http://www.waittfoundation.org and http://www.ilt.columbia.edu/community/ctc/index.html.)

15 U.S. Department of Commerce, *op. cit* (http://www.ntia.doc.gov/ntia-home/dn/Nation_Online.pdf).

16 Nielsen//NetRatings, *Fastest Growing Occupational Groups Using Internet*, April 2001 (http://cyberatlas.internet.com/big_picture/demographics/article/0,,5901_741201,00.html).

17 Content Intelligence Group of Lyra Research, *The Emerging Web-Driven Society*, May 2001.

18 Pew Internet Project, *Vital Decisions: How Internet Users Decide What Information to Trust When They or Their Loved Ones Are Sick*, May 22, 2002 (http://www.pewinternet.org/reports/pdfs/PIP_Vital_Decisions_May2002.pdf).

19 U.S. Department of Commerce, *op. cit* (http://www.ntia.doc.gov/ntia-home/dn/Nation_Online.pdf).

20 UCLA Center for Communication Policy, *The UCLA Internet Report 2001: Surveying the Digital Future, Year Two*, November 2001 (http://www.ccp.ucla.edu/pdf/UCLA-Internet-Report-2001.pdf).

21 Robert H. Smith School of Business, *2001 National Technology Readiness Survey*, January 2002 (http://www.rhsmith.umd.edu/pr/charts.html).

22 Office of Management and Budget, as cited in *Benton Foundation, Losing Ground Bit by Bit: Low-Income Communities in the Information Age*, June 1998 (http://www.benton.org/Library/Low-Income/).

23 Claremont Graduate University, *Summative Evaluation of the Computers In Our Future Program*, 2001; and Fowells, L. & Lazarus, W. Computers In Our Future. *What Works in Closing the Technology Gap: Lessons from a Four-Year Demonstration in 11 Low-Income California Communities*, 2001 (http://ciof.org/report-rls.htm).

24 Story of Bethany Alvarez, Riverside, Calif., participant in the Community Digital Initiative, a program affiliated with the University of California campus at Riverside. Excerpted from *CIOF News, A Newsletter for CIOF (Computers in Our Future) Friends and Supporters*, Spring 2000 (http://www.ciof.org/news-sp2000/teenager.html).

25 Center for Applied Special Technology (CAST) (http://www.cast.org/).

26 See *Top 25 Web Properties, April 2002*, U.S. Nielsen//NetRatings and Jupiter Media Metrix U.S. Top 50 Web and Digital Media Properties, "Unique Visitors, at Home and at Work Combined in the U.S, Measurement Period March 2002."

27 These conclusions are based on an analysis of the following sites: AOL Yahoo!, MSN, Google, Lycos, About.com, Excite, Ask Jeeves, iVillage, and LookSmart.

28 "Web Surpasses One Billion Documents: Inktomi and NEC Research Institute Complete First Web Study," *Inktomi News & Events*, January 2000

29 U.S. Bureau of the Census, *Language Use and English Ability, Persons 5 Years and Over, by State*, 1990 Census (http://www.census.gov/population/socdemo/language/table1.txt).

30 Technical paper presented at the Telecommunications Policy Research Conference on Communication, Information and Internet Policy, October 29, 2001 (http://www.arxiv.org/ftp/cs/papers/0109/0109009.pdf).

31 This is a preliminary estimate; actual figure is expected in Summer 20 U.S. Census Bureau, *Census 2000 Supplementary Survey Summary Tables, QT 02: Profile of Selected Social Characteristics: 2000* (http://factfinder.census.gov/servlet/QTTable?ds_name=ACS_C2SS_EST_G00_&geo_id=01000US&qname=ACS_C2SS_EST_G00_QT02).

32 RAND, *Evaluation of English and Spanish Health Information on the Internet*, May 2001 (http://www.rand.org/publications/documents/internetreval/internetreval.pdf/).

33 Horrigan, J.B. Pew Internet and American Life Project. *Cities Online: Urban Development and the Internet*, November 2001 (http://www.pewinternet.org/reports/pdfs/PIP_Cities_Online_Report.pdf).

34 *Ibid* (http://www.pewinternet.org/reports/pdfs/PIP_Cities_Online_Report.pdf).

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